

Puget Sound Steelhead Recovery Team
October 27, 2015 meeting summary

Decisions and Actions from Meeting

Decisions	
1.	Accepted as final the August 2015 meeting summary with two edits.
2.	Finalized the Fall 2015 newsletter with edits and future additions from Joe Anderson.

Action	Assignment
1. Insert topics or questions from the <i>Topic Tracker</i> into the draft Recovery Plan.	Elizabeth Babcock, Barbara Taylor, Claire Chase, & Bob Wheeler
2. Finalize the 2015 Fall Newsletter, send out.	Joe Anderson, Claire Chase, & Elizabeth Babcock
3. Identify whether the Watershed Characterization work could be incorporated into the linkage library and life cycle model.	Joe Anderson & Phil Sandstrom
4. Discuss stresses and pressures within the Recovery Plan.	Barbara Taylor, Susan O'Neil, Ed Connor, & Tristan Peter-Contesse
5. Schedule January 2016 Team meeting (before January 28 SRC meeting).	Claire Chase

Welcome & Introductions – Bob Wheeler, facilitator, welcomed participants and led introductions (*please see end for a list of participants*). Elizabeth Babcock introduced Barbara Taylor, who has been contracted by NOAA's National Marine Fisheries Service (NMFS) as a technical writer/editor for several recovery planning efforts. NMFS had intended for her to work with the Puget Sound Steelhead Recovery Team ("Team" or "Recovery Team"), but due to an immediate need for her to work on the Oregon Coast coho recovery plan, she has a limited number of remaining hours to work with this Team with her current contract. The hope is that NMFS will be able to contract with her for additional hours over the next year, and that she can be prioritized to work on this Recovery Plan. Barbara has worked on numerous recovery plans and species, including the Mid-Columbia Steelhead, Lower Columbia, Snake River Fall Chinook, Snake River Steelhead, and Snake River Spring and Summer Chinook Recovery Plans.

Announcement – The draft 5-year status review for all listed steelhead is ready for peer review. The authors from the Northwest Fisheries Science Center are currently soliciting their own peer review; open to any Recovery Team member. Dave Price, Phil Sandstrom, Susan O'Neil, and Scott Powell indicated interest in peer reviewing the draft status review. After the peer review, the Center will publish a technical memorandum describing findings on species status, and the NMFS West Coast Regional Office will release a summary document which will likely be published in the Federal Register in early 2016.

August Draft Meeting Summary – The Team reviewed the draft August meeting summary and with two edits, accepted that version as final.

Previous Discussions for Future Consideration – Bob reviewed the *Topic Tracker*, a document created to capture important notes or discussions from any Team meeting. As the Recovery Plan continues to be drafted, this document can serve as a tool to identify other notes or questions the Team had along the

recovery planning process, to be sure they are incorporated appropriately into the Plan. The Team had a brief discussion about the document, including:

- Despite noting that this document could itself become unwieldy, the Team appreciated it because it captures everything in one place.
- The facilitators will work with Elizabeth and Barbara to insert these topics into the draft Recovery Plan outline, where appropriate.
- The Team agreed to capture hatchery production now, compared to the historical Department of Game days. It was noted that hatchery impacts, both genetic and ecological, are based on a legacy of a different way of thinking. Even in the last ten years, there have been a lot of changes that will take time to see the outcomes, and that is also important to capture in the Plan.
- A member noted that the Salmon Recovery Funding Board (SRF Board) has indicated that recovery plans are helpful for securing funding. Therefore, the Plan should have a level of detail so that the SRF Board (and other funders) knows that the projects proposed will be consistent with a larger strategy.
- It was suggested that it would help to color-code the *Topic Tracker* so the Team knows when they have dealt with a certain issue or question.

Elwha River Field Tour Follow-Up – The Team discussed some follow-up work since they toured the Elwha River on August 7. During informal discussions on the tour, the tour group and NMFS learned that despite two dam removals, there were still several huge boulders right below the former Glines Canyon dam blocking the majority of fish passage. Wanting to support the large amount of work already done to remove the two dams, NMFS was able to secure year-end money to blast out almost all the boulders. Experts worked with NMFS to make the case for the funding, which included atypically low flows which made it a perfect time to blast the boulders.

Experts from the Lower Elwha Klallam Tribe, the Olympic National Park, the Washington Department of Fish & Wildlife, and NMFS worked together to make this successful. The Science Center is now drafting a story about the successful inter-agency cooperation to get the word out nationally.

It was noted that we will learn more about increased fish passage as the different species begin to return to the upper reaches. Anticipated higher flows this winter will move a lot of the remaining debris downstream and will hopefully reclaim the natural river movement. One large boulder still remains due to a potentially dangerous situation had it been blasted, so experts will know more after this season if and how it needs to be removed in the future.

The Team agreed to briefly discuss this rockfall removal in the Plan.

Workgroup Progress Reports – The Team has four Workgroups which are subsets of the Team with other experts working on specific parts of the Plan. Updates included:

- *Recovery Goals & Scenarios Workgroup* – Update later in this document.
- *Watershed Template Workgroup / Stresses & Pressures Workgroup* – These two Workgroups are currently working together to discuss the Linkage Library and how that can help as they develop the Watershed Template. More updates later in this document. As they continue working, they will think about whether they should stay as one Workgroup or split again.

- *Habitat Protection Plan Workgroup* – This Workgroup already agreed to build their work upon the work being completed in the Snohomish Basin, which will soon have a complete Snohomish Basin Plan to review and work from. Once that Plan is available (anticipated by early November 2015), the Workgroup will reconvene and figure out next steps – hopefully by the December 17th Team meeting.

Life Cycle Model – Joe Anderson and Phil Sandstrom are leading the effort to create and populate the life cycle model which will be the basis for recovery goals and scenarios for the Plan. They shared several updates.

The anticipated timeline for the model and outputs is:

- **Mid-January 2016:** A draft report will be available that will describe the model.
 - They hope for input from the Recovery Team, other recovery groups, and anyone else interested. The Team could use the January meeting to play with the user interface of the model so the Team can better understand the model's outputs and sensitivities.
 - They anticipate having a well-developed idea of the model outcome(s), based on compiled data allowing them to add informed inputs into the model (e.g., how to parameterize the model), and then they will be able to provide guidance for how to use the model.
- **Late January or early February 2016:** Convene the same meetings they had in each Major Population Group (MPG) in April/May 2015. They will discuss the draft report and demonstrate the user interface, with the hope of getting feedback on both.
- **January – June 2016:** Incorporate feedback from the MPG meetings and add complexity to the model (especially by adding specificity to steelhead life history, behavior, and ecology). From that, they will be able to develop recovery scenarios.
- **July 2016 – January 2017:** Establish recovery goals, run the model and compare the results within each MPG, and examine different combinations of populations achieving recovery within each MPG to get to viability. They will work on one MPG at a time. Since the North Cascades MPG has twice the Demographically Independent Populations (DIPs) as the other MPGs, they will strategize whether it makes sense to start or end with that one.

The Team discussed the timeline and agreed that it would make sense to have a briefing on this timeline to the Salmon Recovery Council, likely at their January 28, 2016 meeting. The Team agreed to prepare for this briefing at the January Team meeting (date yet to be determined).

Next, the Workgroup reviewed the work done so far on the model. Points included:

- The overarching goal is to provide a scientific foundation for establishing the recovery goals.
- Strengths: transparency and ability to get to the population scale.
- Weaknesses: the model is designed to compare populations, but not compare recovery options within a population.
- The Recovery Team will have to decide where the DPS-level Plan stops and the watershed chapters pick up.
- To estimate capacity, they estimated the quantity of available habitat and smolt abundance. Watersheds without abundance estimates can use this relationship to estimate capacity.

- The model can be run for a range of hypothetical scenarios, so they can have a baseline, median, and range. The summary statistics can be used to get more specific information.
- The ability to add climate change to the model is challenging. One way is to assume that climate change will create a more dynamic, stochastic climate – and if that assumption is desired, the model inputs can be modified to increase that stochasticity.
- The model currently has relatively coarse estimates of capacity. They have the ability to provide simple restoration scenarios (like increasing capacity 5% for every five years). Additional GIS analysis will be required to add resolution to restoration scenarios. Tim Beechie's method for estimating capacity under restoration scenarios is a perfect complement to the life cycle model.

Tim Beechie from the Science Center presented to the Team about the work to estimate capacity that can complement the life cycle model. His presentation and discussion included the following points:

- The two objectives of this method of estimating capacity are to identify habitats that limit population recovery and to identify restoration scenarios that provide the largest benefit.
- This method is based on the concept that landscape processes lead to habitat conditions which sustain biota.
- This method tries to answer:
 - How have habitats changed and altered biota?
 - Where are we today relative to where we could be?
 - What are the root causes of habitat and biological change?
- The Team noted it will be important to keep in mind where human population growth is expanding in rural areas and how that will affect the habitat and biota.
- A Team member noted that the effects of fine sediments are important to capture in the Plan, but may be hard to consistently measure and the same amount of data may not be available in all basins.
- Tim shared work done in other basins, which can be examples for how to estimate restoration potential. Having multiple restoration scenarios can estimate habitat change and can help recovery planners adjust their assumptions.
- A Team member noted the importance of considering all four VSP parameters as the recovery planning continues.
- A Team member noted that the model outputs could show that restoration should mostly occur in the main stems, since those areas of the basin can be much more challenging to restore or recover than tributaries. Another Team member noted that Nisqually has done a lot of restoration in the tributaries and they are seeing a difference in diversity.
- The life cycle model could include the work from the Climate Change Vulnerability Assessment, as long as there is climate change projection information for Puget Sound.
- It was noted that the tools needed to develop restoration scenarios are available. Especially in the Elwha, Skagit, and Stillaguamish basins, information exists for steelhead and coho, so the information can be compared across basins and/or across species within one basin.
- The difference between Chinook and steelhead would identify summer habitat. Identifying winter habitat might be trickier; what is needed would be the relationship between the driver and the survival.

- In order to do this work in all the watersheds, there are some things that are available but would need some work (e.g., the photography exists but the specific photos may need to be acquired). If this assessment could be done in all watersheds and then combined with the life cycle model, that would be a really excellent product to provide to the watersheds.

Fall 2015 Newsletter – The Team reviewed the draft content for the Fall 2015 newsletter. There were some edits and Joe Anderson agreed to write the content for the life cycle model update. Elizabeth Babcock reminded the Team that the audience for the newsletter is everyone who has indicated interest to NMFS in getting updates; largely based on attendance at a spring 2013 workshop.

Linkage Library – Phil Sandstrom and Susan O’Neil provided the Team an update on the work being done to create a “linkage library” for watersheds to use in developing their local chapters of the Plan. Points and discussion included:

- The intent of the linkage library is to be really intentional about the linkages, and create a repository where watersheds can use any of the linkages for their chapters.
- They realized that they can fit some of the pieces into the life cycle model. Anywhere one of the inputs can be impacted, the idea is to add information from the linkage library. In order to make that work, they need quantitative inputs from the model.
- They noted that if there are multiple parameters, the watersheds should probably keep them separate.
- Their goal is to distill technical information so it can be most helpful to the watersheds in developing their local chapters.
- Where there are strong linkages with data, the Team agreed to make it fit with the life cycle model. Where there are other pieces known to affect steelhead but without specific data, the Team agreed to not put into the model, though recovery managers could probably use that information.
- They anticipate linking into parts of the life cycle model, which is why they have not yet addressed hatcheries.
- The Team agreed to revisit the idea of linking the Watershed Characterization work done by George Herr to the model work.

Steelhead Planning Geographies – Tristan Peter-Contesse shared with the Team the work done so far by the Puget Sound Partnership (PSP) to think about how to best manage the planning groups for steelhead recovery. So far, PSP has talked with some Technical Recovery Team leaders and internally within their agency. Points and discussion included:

- The existing geographies for management groups are based on Chinook populations, and often steelhead populations do not align with the Chinook ones.
- They hope to not create another management group layer, so the challenge is to try to align as best as possible with the existing Chinook watershed management.
- After overlaying geographies on each other, PSP realized that there are seven populations that are more challenging than the others to determine how to draw the management boundaries.
- It might be that these challenging areas are where there is no Chinook spawning population. PSP will follow up on that idea and see if it helps reduce the challenging geographies.

- The purpose of management groups is organizing restoration activities, not splitting populations by actual fish. If the DIPs are split per PSP's proposal, the information for the Endangered Species Act would still be categorized by DIP.
- PSP identified a proposal for the Recovery Team, which is to split the few challenging steelhead populations – for the purposes of developing and implementing restoration and protection projects – into the existing Chinook management groups. However, that would assume that the different groups would work well together and have similar weights of importance for the different species and various actions.
- It was noted that the current funding allocation is based largely on Chinook recovery. It is likely that that allocation formula will change in the future as they consider other species.
- It was noted that by having one group address both Chinook and steelhead recovery, it could make those entities prioritize or de-prioritize steelhead over Chinook.
- It was noted that Colony Creek in the Chuckanut had an agreement a while ago and it might make sense to incorporate into one policy area instead of in the Samish.
- PSP will take the feedback from the Team and revise into a proposal that they will next talk about with tribes, other policy bodies, and other interested people. They will particularly use the feedback that steelhead are important and need their own dedicated management, however that is organized. They will also update the Team about these discussions at a future Team meeting.

Recovery Plan Outline – The Team briefly updated the assignments for various pieces of the Recovery Plan, and agreed to dedicate more time to a full review of the updated outline at the December 17th meeting.

Updates

- NMFS anticipates finishing soon the critical habitat designations; Elizabeth Babcock will further update the Team as that is finished.
- The 5-year status review will be published in the Federal Register in early 2016. Elizabeth will be sure to update the Team directly if there is a change in the steelhead status.
- The next meeting will likely be in Tacoma. Likely agenda topics:
 - Skagit update from Steve Hinton
 - Questions from August meeting summary
 - Linkage library update
 - Steelhead Planning Geographies update
 - Dedicated review of draft Recovery Plan
 - Discuss what to do about habitat in the context of the life cycle model
 - Life cycle model update
- In 2016, the Team expressed interest in going back to monthly meetings. They will consider having part-day Team meetings and part-day Workgroup meetings.

The meeting was adjourned at 2:50pm.

Participants:

Participant	Affiliation
Joe Anderson	Washington Department of Fish & Wildlife
Elizabeth Babcock	NOAA's National Marine Fisheries Service
Tim Beechie	Northwest Fisheries Science Center
Ed Connor	Seattle City Light
Ned Currence	Nooksack Tribe
Ken Currens	Northwest Indian Fisheries Commission
Jeanette Dorner	Puget Sound Partnership
Jeff Hard	Northwest Fisheries Science Center
Susan O'Neil	Long Live the Kings
Scott Powell	Seattle City Light
Tristan Peter-Contesse	Puget Sound Partnership
David Price	Washington Department of Fish & Wildlife
Phil Sandstrom	Washington Department of Fish & Wildlife
Barbara Taylor	NOAA Contractor
Bob Wheeler	Triangle Associates
Claire Chase	Triangle Associates